

3. Water

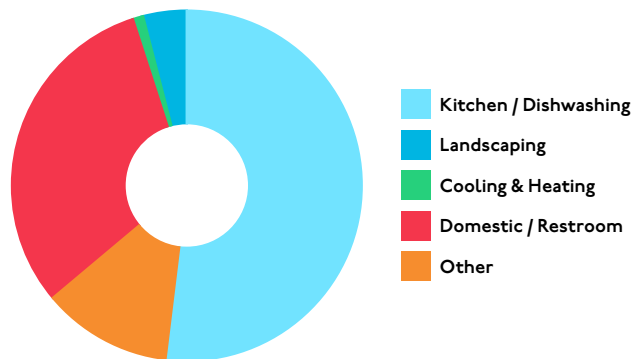


Most people don't give much thought to what happens to their water after it's disappeared down the plug hole.

You might be surprised to learn that cleaning and treating your waste water is a very energy-intensive process. So the less water your business uses, the better it is for the environment.

If you're one of the growing number of food business that are on a water meter, then cutting back your water consumption could also save you a bob or two.

End uses of water in restaurants



Source: [EPA, Saving Water in restaurants, 2017](#)

Things you can do to make a difference

3a. Water provenance

- Harvest rainwater and reduce your reliance on external supplies
- Switch to a water supplier that will support you in your quest to reduce consumption

3b. Water use

- Identify where in your business water is being used and lost
- Invest in water-saving products and technology
- Implement water-saving practices and policies
- Involve and train your staff

3c. Water recovery

- Recycle your 'grey' waste water

3a. Water provenance

The water you use can come from all sorts of sources. You can now change your water supplier. You can even become your own water supplier.

Rainwater harvesting

One of the most effective ways of reducing your water use is to use 'green water' that you've harvested yourself.

Rainwater collection systems, typically located on rooftops, harvest rainwater and store it in tanks. This green water can then be used for flushing your toilets, irrigating your kitchen garden, supplying your dishwashers and for general cleaning purposes.

Food businesses often put signs in their washrooms informing customers that their toilets use harvested rainwater – it goes down very well with guests who are as concerned about the environment as you are.

You may even be able to get help paying for rainwater harvesting systems from leading suppliers like [RainCatcher](#) and [Aquaco](#) via the Government's [Annual Investment Scheme](#).



Want to learn more about how to harvest rainwater? Download the European Commission's [Best Practice Guide to Rainwater and Grey Water Recycling](#).

Switching supplier

It's also worth remembering that not all suppliers of water are equal.

It may come as a surprise to you that you're able to switch water supplier. In April 2017, changes were made to the water market which means businesses across England can now decide who they buy their water from, even if the wholesaler remains the same.

That puts you at a distinct advantage to residential customers, who are still not allowed to make that choice. It means you can shop around and choose to buy your water from a company that is committed to supporting you – through practical tools and expert advice – in your quest to reduce waster consumption.

3b. Water use

There's no avoiding the fact that food businesses are water-hungry environments. Preparing and cooking food; washing up; keeping kitchen and dining areas clean – water is a vital ingredient for all of these essential tasks.

But don't despair. There are many things you can do to cut back on your water use, and the good news is that most of them are incredibly simple to implement and won't break the bank.

Hunt down water waste

Before you can reduce your water use, you need understand how much water you're currently using and where you might be able to cut back. WRAP have published an excellent guide to help you do this: [Water Efficiency in the Food and Drink industry](#).

Invest in water-saving products

Once you've got a better understanding of your water use, you're in a much better place to know what you need to do to cut back. There are lots of products and technologies available on the market that are designed to help you do just that.

Case Study

Cutting water bills by a third

WHEN THE FAMILY-OWNED HENDERSON'S RESTAURANT IN EDINBURGH DECIDED THEY WANTED TO REDUCE THEIR WATER USE, THEY REACHED OUT TO ZERO WASTE SCOTLAND FOR HELP.

With the experts on board, the first step was to conduct a water mass balance survey to understand where water was being used and where it was being lost (including evaporation during cooking, water used in beverages and waste water going down the drain). The results allowed Henderson's to clearly identify two key actions that would reduce water use and cut costs.

Making leaks a thing of the past – Henderson's took water meter readings on a Saturday evening when all activity had ceased and then again on the Sunday morning before work started to determine if any water

had been used when the premises were unoccupied. This allowed them to identify, investigate and fix leaks.

Flush right – it was estimated that flushing the toilets at Henderson's was costing over £2,500 per year. The capacity of the toilet cisterns was reduced from nine litres to six litres, reducing annual water use by 350m³. Fitting passive infra-red sensors to the urinal flushing controls further reduced water consumption by 75%.

With the help of Zero Waste Scotland, Henderson's not only reduced their carbon footprint, they also cut their water bills by a third.



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Here are just a few ideas to get you started:

- ◆ Replace old spray nozzles with new high performance ones – they can reduce water consumption by up to 90%
- ◆ Fit urinal flushing controls and cistern volume adjusters in your toilets. If you're doing a re-fit of your toilets, consider installing waterless urinals as well as low-flush or dual-flush toilets
- ◆ Upgrade dishwashers to newer energy-efficient models that don't use excessive amounts of water
- ◆ Ask your water supplier to fit a water meter (if you're not already on one). It will help you track your water use, identify where efficiencies can be made and reward you for reducing your water use.

Implement water-saving practices and policies

You don't need to spend lots of money on fancy new gadgets to start cutting back on your water use. Just introducing some simple, common sense policies and practices can make a big difference. For example:

- ◆ Carry out regular checks of your water supply system so that problems are identified and rectified early
- ◆ Fix leaking taps promptly – simple but incredibly effective

- ◆ Make sure your kitchen staff wash fruit and vegetables in a bowl of water instead of under a running tap
- ◆ Don't defrost food under running water
- ◆ Don't overfill pots and pans
- ◆ Only turn dishwashers on when they're full.

Involve and train your staff

Once you've come up with your water-saving action plan, it is vital that you train all your staff so they understand how to save water, and why its important. You could even get your staff involved in developing the plan itself - giving them ownership will help change behaviours.

Want to learn more about how to conserve water? Read Zero Waste Scotland's [Guide on how to save money on your business water bills](#).



3c. Water recovery

Yes, it's possible to recycle your water!
Well, your 'grey water' at least.

'Grey water' is the relatively clean waste water from dishwashers, sinks and kitchen appliances (it's clean relative to the water used to flush your toilets, which is called 'black water' – you can't re-use that!).

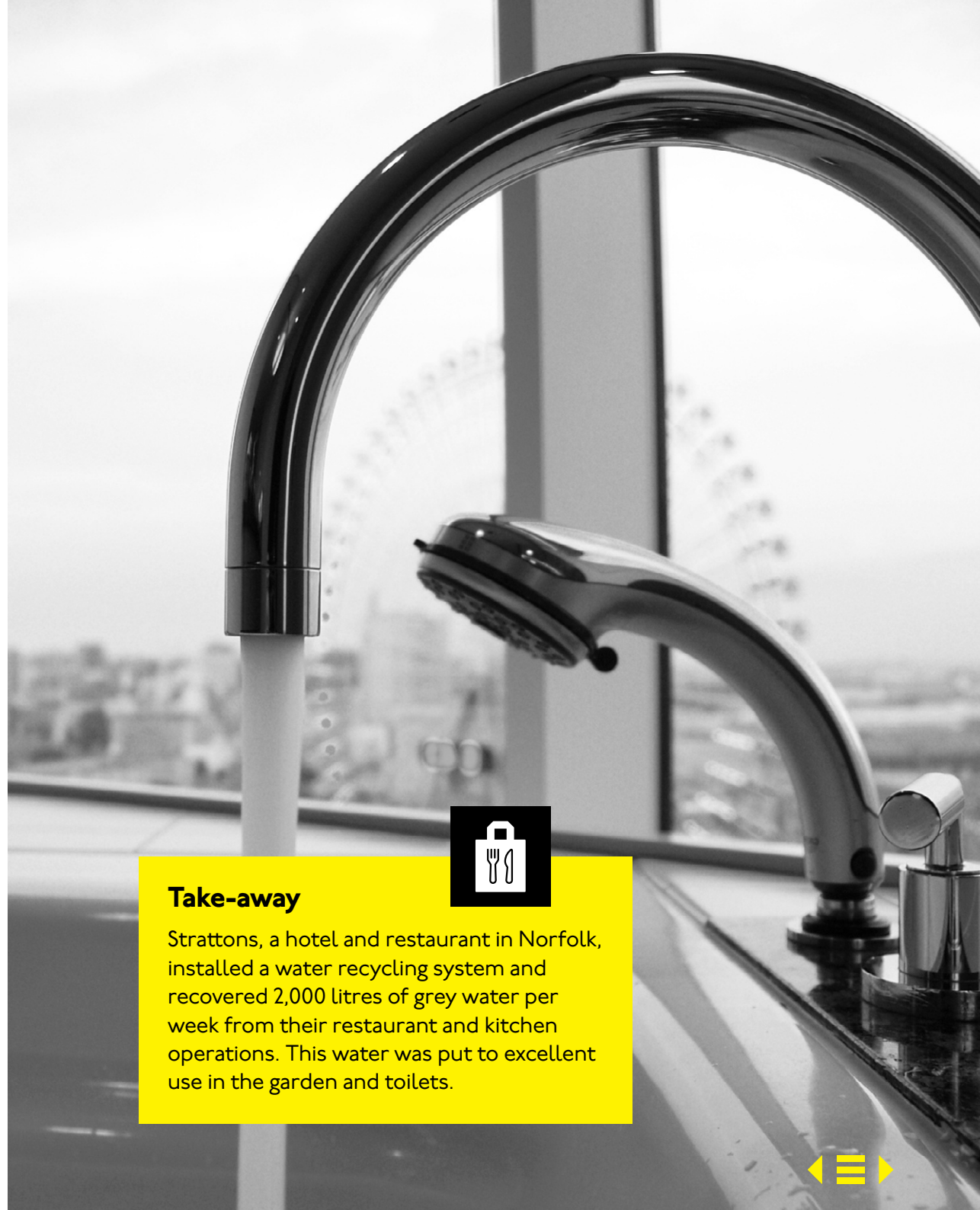
Grey water can be collected and re-used for non-potable water applications such as toilet flushing and irrigation.

To do this, you need to install separate waste water drainage systems for your grey water sources and a supply feed to your toilets. This is often too expensive and impractical to retrofit, but can be installed at relatively low-cost during construction, and at reasonable cost during major renovations and re-fits.

Studies have shown that recycling grey water makes it possible for food and hospitality businesses to reduce their water consumption by an additional 10%¹⁵.

Read the [rainwater and grey water recycling](#) section of the European Commission's Best Environmental Management Practice guide

¹⁵. EU commission, 2013, Best Environmental Management Practice in the Tourism Sector 39



Take-away

Strattons, a hotel and restaurant in Norfolk, installed a water recycling system and recovered 2,000 litres of grey water per week from their restaurant and kitchen operations. This water was put to excellent use in the garden and toilets.

